Name:

Class Period:

Water Reading Seminar Student Worksheet

PART I - Individual Questions. Complete the set of questions that corresponds with the suit of your card. The answers to these questions can be found in the reading, your notes, your textbook or the Internet.

Spades- Surface Tension,

Explain polarity and why water has this property.

How is polarity related to surface tension?

How does soap affect the surface tension of water?

Describe the difference between adhesion and cohesion.

Diamonds - Capillary Attraction

How is polarity related to capillary attraction?

Give two examples of places where water moves upward by capillary attraction in nature.

Using your understanding of capillary attraction, explain how synthetic fabrics like Gore-tex work.

Why does water rise higher in thinner capillary tubes?

Clubs - Solubility and Phase Changes

How does polarity affect solubility?

Give examples of nutrients that are dissolved in lakes, rivers, and the ocean.

Describe a soap molecule's ability to dissolve water and oil.

Describe the phase changes that occur in the water cycle.

How does freezing water contribute to the weathering of rocks?

Hearts - Density

Define density.

How does density affect ocean currents?

How does a fish's swim bladder affect its ability to change depths?

Why does ice float?

In which phase is water the most dense? Which water phase is the least dense?

PART II - Cooperative Questions. Meet with the other people in your group, those who have the same number playing card of a different suite. Each person has completed a different set of questions, the ones that correspond to their Water Project topic. Present your set of answers and complete the information as others present their assigned subject area.

PART III - Group Questions Complete these questions as a group.

Explain how detergents are related to the process of eutrophication.

How is polarity related to surface tension, capillary attraction, and solubility?

Describe the relationship between density and phase changes in water.

Diagram how polarity exists between water molecules.

PART IV - Concept Map Working as a group, build a concept map using the ten words and phrases below and at least three of your own words. Place each word in a box and organize the boxes into a logical arrangement. Use a different color to label the lines that connect the boxes.

Required Terms List:

- Adhesion
- Capillary attraction
- Cohesion
- Density
- Polarity
- Solubility
- Surface tension
- Three phases of matter
- Universal solvent
- Water